

Index & Specimens

U. S. A.
MEDICAL DEPARTMENT.

BLANK BOOK



20, 2621₁

7, 1988,

6,

771, 1925,

1728,

1611,

66,

1140,

5,

597₁

111₁

669₁

204₁

8₁

33,

29₁

1

Index to Specimens of Birds to March, 1884.

- Circus hudsonius*. — (see p. 259) 2240,
CLIII,
Accipiter velox. — 169, 1349, 1496, 1802,
Accipiter cooperi. — 1226,
Accipiter atricapillus. — 2005, 2170,
LXL,
Buteo borealis. — 1544, 1853, 2179,
Buteo lineatus. — See p. 367
Buteo latissimus. — 41, 1224, 1225, 1229, 1463, 1976, 2040, 2072, 2073, 2535B,
Archibuteo lagopus sancti-johannis. — 2640
Aquila chrysaetos. — LXLV, CLXXXIII, (see p. 233), (see p. 389)
Haliaeetus leucocephalus. — 195, 495, 1222, 1232, 1553, 2515.
Falco peregrinus anatum. — 2100 (also see p. 167),
Falco columbarius. — 2085, (see p. 283) see p. 151.
Falco sparverius. — 1355, 2120,
Pandion haliaetus carolinensis. — LXXXIX, LXLII, CLI, CLXXVII,
42, 43, 197, 2626, (see p. 313).
Strix pratineola. —
Asio wilsonianus. — 2021, 2062, 2238,
Asio accipitrinus. — 2119,
Syrnium nebulosum. — 1328,
Nyctala
LXLVI, 1934, 2169 (sm), 2486 (red), 2520 (red), 2594 (light red),
Megascops asio. — 241 (red), 251 (red), 712, 718, 719, 809, 1338, 1339, 1932, 1933,
CXXI
Bubo virginianus. — 1324, 2239,
Nyctea nyctea. — 815, 2108.
CLXXV,
Coccyzus americanus. — 25, 27, 205, 1674, 1675, 1676, 2180,
CLXXIV, 2438,
Coccyzus erythrophthalmus. — 204, 687, 720, 1150, 1757, 1922, 1985, 2052,
CXXI, CLXXIX,
Ceryle alcyon. — 50, 137, 172, 173, 221, 257, 258, 665, 735, 783, 787, 804,
1146, 1873a, 1875, 2362, 2455, 2624,
LXXVI, 1920, 2010, CXXXI, 2235, 2349, 2389, 2394, 2476, 2630,
Dryobates villosus. — 168, 348, 437, 497, 1330, 1332, 1333, 1385, 1527, 1829, 1830,
LXX, LXXI, CXXVII, CLXI, CLXII, CLXX, CCIV,
Dryobates pubescens. — 30, 63, 163, 175, 317, 337, 350, 371, 421, 449, 466,
1769, 1792, 1825, 1839, 1953, 2009, 2121, 2314, 2342,
478, 726, 738, 746, 852, 866, 875, 877, 879, 880, 957, 1331, 1529, 1557, 1567, 1593, 1710,
CCVII,
Sphyrapicus varius. — 238, 242, 243, 805, 882, 1282, 1292, 1296, 1304, 1305,
1327, 1358, 1482, 1626, 1635, 1684, 1780, 1861, 1865, 1868, 1885, 2202, 2367, 2496,
Melanerpes erythrocephalus. — 1334, 1492, 1493, 1525, 1526, 1528, 1530, 1531,
1661, 2123, 2124, 2125, 2126, 2127, 2128, 2203,
Melanerpes carolinus. — 2122, 2236, 2237,
LXXII, LXXXIV, CLVII,
Colaptes auratus. — 24, 25, 36, 37, 38, 39, 40, 177, 189, 260, 538,
583, 1132, 1320, 1350, 1615, 1871, 1942, 2022, 2046, 2355, 2356, 2358,
2376, 2437, 2457, 2518,

- Antrostomus vociferus*. — 4, ~~44~~, 65, 641, 785, 1127, 1384, 1881, 2454, 2620, 2621,
Chordeiles virginianus. — 681
LXI
Chaetura pelagica. — 2, 3, 593, 634, 635, 636, 1741, 1777, 1903, 1987, 1988,
1989, 2048,
XXVI, LVI,
Meleetus colubris. — 1, 188, 678, 697, 1703, 2061, 2421, 2562, 2586,
LXVI, LXIX,
Tyrannus tyrannus. — 5, 58, 128, 624, 628, 721, 1163, 1442, 1744, 1771, 1925,
2570, 2580, 2581, 2611,
LXXIX, LXXXV,
Myiarchus crinitus. — 6, 129, 152, 153, 178, 733, 734, 757, 1171, 1466, 1728,
XXIV, CXXVIII, CXXIX,
Sayornis phoebe. — 192, 534, 920, 942, 948, 1112, 1395, 1604, 1605, 1609, 1611,
1768, 1935, 1992, 2351, 2352, 2357,
Contopus borealis. — 737, 749, 750, 1250, 1708,
XLIV,
Contopus virens. — 454, 729, 1230, 1236, 1237, 1238, 1239, 1256, 1723, 2066,
XLII, (CII?),
Empidonax flaviventris. — 714, 781, 1122, 1137, 1138, 1145, 1739,
(CII?),
Empidonax pusillus traillii. — 1142, 1143, 2051, (2606?),
(CII?),
Empidonax minimus. — 95, 182, 185, 652, 653, 1135, 1136, 1139, 1140,
1141, 1144, 2041,
Otocoris alpestris. — 1822, 2163, 2164, 2165, 2166,
I, IV, V, VI, LXXXIII, LXXXVI, LXXXVII, CLXL, CCVI,
Cyanocitta cristata. — 59, 60, 211, 222, 248, 250, 451, 900, 1149, 1657, 1804, 1805,
2598,
1806, 2016, 2129, 2130, 2234, 2254, 2458, 2459, 2483, 2484, 2485, 2569, 2582, 2597,
CLXLVII, 2029, 2517, 2625,
Corvus americanus. — 52, 234, 235, 236, 237, 813, 878, 1462, 1464, 1465, 1857, 1981, 2011,
Corvus ossifragus. — 1360, 2535, a.
LXXX, LXXXI,
Dolichonyx oryzivorus. — 706, 713, 1178, 1246, 1247, 1248, 1249, 1456, 1720,
CLX,
Molothrus ater. — 61, 62, 578, 912, 946, 965, 1616, 1627, 1628, 1629, 1630, 1659, 1668, 1669,
1876, 2023, 2042, 2043, 2395,
CXLVIII, CLXXXII, CLXLIII, CLXLIV, CLXLV, CLXLVI, CC, CCVIII,
Agelaius phoeniceus. — 21, 22, 164, 176, 200, 201, 202, 215, 218, 240, 508, 704,
2033, 2081, 2082, 2380, 2381, 2418, 2419,
1152, 1157, 1161, 1166, 1195, 1371, 1446, 1487, 1622, 1633, 1700, 1701, 1748, 1749, 1750, 1949, 2028,
XLVIII, 1345, 1620, 1621, 1623, 2020, 2091, 2107, 2131, 2197, 2231, 2232, 2233,
XLV, 1190, 1204, 1244, 1414, 1630, 1690, 1699, 1721, 1760, 1833, 1956, 2426, 2559, 2571,
Sturnella magna. — 17, 18, 19, 20, 101, 109, 120, 122, 123, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000,
Icterus galbula. — 17, 18, 19, 20, 101, 109, 120, 122, 123, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 9

^{275 to 287,}
Pinicola enucleator. $\bar{\wedge}$ 293, 294, 295, 296, 297, 298, 299, 313 to 316, 320 to 332,
352 to 355, 412, 413, 469, 501 to 507, 841, 842, 843, 1795 to 1801, 2464 to 2467,

2491, 2497, 2508 to 2511, 2636, 2637, 2641, 2642, 2643.

~~XXVII~~, ~~XXXVII~~, ~~XXXVIII~~, ~~CCXI~~,

Carpodacus purpureus. $\bar{\wedge}$ 224, 225, 247, 402, 403, 470 to 473, 531, 539, 540, 693,
1610, 1891, 2017, 2193, 2194, 2211, 2246, 2288, 2293, 2331, 2343, 2373, 2526 to 2529, 2531, 2612,
797, 798, 811, 837, 1167, 1314, 1356, 1513, 1524, 1532, 1537, 1554, 1555, 1556, 1564 to 1566, 1570 to 1573, 1592, 1603,

Loxia curvirostra minor. $\bar{\wedge}$ 333, 334, 335, 339 to 342, 351, 356, 357, 400, 414,

422, 423, 490, 491,

Loxia leucoptera. $\bar{\wedge}$ 343 to 347, 358, 359, 360, 361, 362, 2462, 2463,

Acanthis linaria. $\bar{\wedge}$ 300 to 303, 319, 364, 365, 375 to 380, 382, 385 to 399, 417, 426 to 432,
2492 to 2494, 2498 to 2505, 2514,

452, 453, 479, 480, 498, 528, 529, 530, 535, 536, 1809 to 1815, 2472 to 2474, 2478, 2479, 2480, 2487 to 2489,

~~XXX~~
Poocaetes gramineus. $\bar{\wedge}$ 564, 565, 568 to 572, 580, 918, 925, 1667, 2371, 2377,

Ammodramus sandwichensis savanna. $\bar{\wedge}$ 557, 613, 614, 615, 1260, 1643, 1644,

1653, 1872, 2102,

Ammodramus savannarum passerinus. $\bar{\wedge}$ 1715, 1716,

Ammodramus caudatus nelsoni. ^{CCXII,} $\bar{\wedge}$ 246, 1495,

Zonotrichia leucophrys. $\bar{\wedge}$ 1177, 1181, 2424,

~~XXXIX~~, ~~CLXXI~~, ~~CLXXII~~,
Zonotrichia albicollis. $\bar{\wedge}$ 124, 127, 239, 259, 602 to 605, 705, 1151, 1168, 1283, 1370,

1387, 1388, 1488, 1785, 2044, 2388, 2397,

~~LXLVII~~, ~~C~~, ~~CF~~, ~~CXLI~~,
Spizella monticola. $\bar{\wedge}$ 291, 338, 372, 383, 420, 425, 436, 438, 443, 457, 458, 462, 463, 477,

558, 828, 830, 858, 862, 1520, 1521, 1588, 1545 to 1547, 1787, 1803, 2015, 2477,

~~CXLIV~~, ~~CXLV~~, ~~CXLVI~~, ~~CXLVII~~,
Spizella socialis. $\bar{\wedge}$ 115, 584, 585, 617, 774, 941, 1113, 1118, 1619, 1960, 2003,

~~LXXII~~, ~~CXLIII~~, ~~CCI~~,
Spizella pusilla. $\bar{\wedge}$ 69, 619, 914, 1116, 1288, 2047, 2368, 2530,

~~X~~, ~~XXXVII~~, ~~CIII~~, ~~CXVII~~, ~~CXXIV~~, ~~CXXIX~~, ~~CXXX~~,
Junco hyemalis. $\bar{\wedge}$ 254, 256, 418, 424, 456, 499, 563, 618, 850, 860, 867 to 871, 896, 902, 903,

944, 1306, 1347, 1607, 1631, 1858, 2271, 2287, 2307, 2325, 2326, 2327, 2370, 2533, 2628,

~~XX~~, ~~CF~~, ~~CXX~~, ~~CLXXV~~, ~~CLXLVII~~,
Melospiza fasciata. $\bar{\wedge}$ 28, 103, 210, 349, 363, 384, 419, 435, 444, 510, 512, 520, 533,

724, 861, 887, 896, 906, 1577, 1614, 1652, 1654, 1828, 1864, 2012, 2260, 2368, 2372, 2412, 2482,

2632, 2633,

~~CCXIII~~,
Melospiza georgiana. $\bar{\wedge}$ 245, 252, 559, 560, 561, 917, 956, 966, 967, 1293, 1294, 1458,

1651, 2035, 2522, 2523,

~~CIX~~, ~~CX~~, ~~CXVIII~~, ~~CXIX~~,
Passerella iliaca. $\bar{\wedge}$ 113, 114, 193, 518, 519, 541, 548, 886, 897, 898, 901, 1348, 1507,

1513, 1569, 1574, 1608, 1612, 1842, 1845, 1846, 1863, 2013, 2014, 2339, 2340, 2341, 2346, 2347, 2350,

2495,

~~LI~~, ~~CCIII~~,
Pipilo erythrophthalmus. $\bar{\wedge}$ 64, 146, 147, 223, 579, 611, 633, 1147, 1155, 1156, 1374,

1401, 1639, 1647, 1658, 1908, 1993, 2065, 2161, 2162, 2396, 2403, 2553, 2572,

Cardinalis cardinalis. $\bar{\wedge}$ 2151 to 2160, 2225 to 2230,

^{LI},
Habia ludoviciana. $\bar{\wedge}$ 12, 13, 14, 15, 16, 684, 685, 1170, 1177, 1202, 1203,

1420, 1421, 1490, 1685, 2050, 2181, 2420, 2423, 2601, 2602, 2605,

^{LIII}, ^{LXXIII},
Passerina cyanea. $\bar{\wedge}$ 117, 118, 141, 142, 148, 194, 1218, 1219, 1391, 1443, 1481, 1483,

1713, 1714, 1974, 1975, 2399, 2451, 2599,

Piranga ludoviciana. $\bar{\wedge}$ 2244,

~~*Piranga rubra*~~

^{LXIII}, ^{LXIV}, ^{LXXVII}, ^{LXXXVIII}, ^{CLXXVI},
Piranga erythromelas. $\bar{\wedge}$ 8, 9, 29, 206, 664, 671, 673, 694, 743, 770, 1133, 1169,

1172 to 1174, 1182 to 1188, 1191 to 1193, 1198 to 1200, 1242, 1243, 1254, 1403, 1422, 1431, 1432,

1445, 1696, 1698, 1727, 1752, 1758, 1831, 1892, 1930, 1931, 2058, 2191, 2560, 2584, 2585, 2610,

Piranga rubra. $\bar{\wedge}$ 8, 9, 2583,

^{CXXVI}, ^{CLV},
Spinus tristis. $\bar{\wedge}$ 70, 71, 292, 814, 820 to 823, 831, 832, 833, 844, 846 to 848,

890, 905, 1120, 1121, 1270, 1378, 1460, 1461, 1533, 1534, 1536, 1549, 1585, 1648, 2173, 2246,

2247, 2330, 2359, 2391, 2631,

Spinus pinus. $\bar{\wedge}$ 249, 381, 404 to 410, 416, 1548, 2103, 2512, 2573,

Plectrophenax nivalis. $\bar{\wedge}$ 439 to 442, 481 to 483, 494, 496, 500,

^{CV},
Passer domesticus. $\bar{\wedge}$ 474, 492, 493, 511, 515, 910, 947, 961, 1124, 1514, 1575,

1576, 1579, 1580, 1890, 2324, 2337, 2338, 2506,

Petrochelidon lunifrons. - 34, 150, 544, 675, 715, 716, 1180, 1451 to 1454,

Chelidon erythrogaster. - 36, 586, 592, 600, 601, 607, 608, 623, 1258, 1375, 1640, 1641, 1724,
1725, 1726, 1754, 1755, 1973, 2047 a, 2456,

Tachycineta bicolor. - 31, 32, 33, 216, 591, 595, 596, 598, 599, 606, 609, 610, 924, 1346,
1735, 2595,

Clivicola riparia. - 1205, 1231,
1441, 1455, 1966, 1968, 1969, 1971, 1972,

Stelgidopteryx serripennis. - 1836, 1967, 2452, 2453,

XXXIII, XLVI, LXXVIII, CXXV, 2272 to 2277, 2280 to 2282, 2306, 2294 to 2296, 2315 to 2323, 2332 to 2336, A
Amphispiza cedrorum. - 104 to 106, 151, 162, 198, 274, 260, 261, 475, 476, 488, 489, 522 to 525,
1575, 1580, 1581, 1582, 1586 to 1591, 1594 to 1599, 1601, 1602, 1747, 1761, 1838, 1843, 1844, 1848, 2196, 2261 to 2267, 2270,
543, 545, 739, 740, 764, 853, 855, 856, 859, 891 to 894, 904, 907, 1235, 1522, 1558, 1559, 1560, 1562, 1563, 1568, A

XX
Lanius borealis. - 824, 1340, 1824, 2171, 2216,

Lanius ludovicianus. - 2345,

LXXVII, CLXXIX, CLXXXVI, CLXXXVIII,
Vireo olivaceus. - 57, 100, 136, 161, 203, 209, 233, 709, 723, 1216, 1241, 1263, 1266, 1269, 1413,
1474, 1678, 1745, 2069, 2449, 2613,

Vireo philadelphicus.

Vireo gilvus. - 696, 1213, 1214, 1215, 1367, 1900, 2400, 2414,

Vireo flavifrons. - 97, 98, 99, 119, 1196, 1210, 1211, 1212, 1691, 1711, 1948, 1962, 2566,
2615,

Vireo solitarius. - 742, 771, 977, 1111, 1117, 1206, 1207, 1208, 1209, 1285, 1351, 1363, 1366,
1999, 2037, 2406, 2550,

CLXXVIII,
Vireo noveboracensis. - 184, 679, 1217, 1471, 1906, 2401, 2567,

Mniotilta varia. - 77, 575, 620, 666, 672, 736, 981, 1007, 1073, 1083, 1227, 1268,
1317, 1357, 1359, 1372, 1673, 1746, 1765, 1879, 1887, 2385, 2575

Helminthophila theus vermicorus. - 107, 144, 174, 994, 1033, 1069, 1095, 1102, 1106,
1468, 1469, 1734, 1834, 2054, 2185, 2410, 2446, 2574, 2600,

Helminthophila pinus. - 1415, 2607.

Helminthophila chrysoptera. - 1686, 1707, 1908, 1928, 1944, 1945, 1946, 1950, 1951,
1952, 2053, 2184, 2187, 2425,

Helminthophila ruficapilla. - 92, 93, 94, 639, 668, 669, 689, 763, 974, 991, 1002, 1074,
1085, 1088, 1090, 1207, 1687, 2408, 2415, 2447, 2545, 2549, 2554, 2555, 2568,

Helminthophila celata. - 667.

Helminthophila peregrina. - 91, 703, 1279, 1289,

Compsothlypis americana. - 56, 154, 231, 655, 670, 680, 695, 710, 711, 772, 996, 1075,
1267, 1272, 1286, 1381, 1383, 1408, 1776, 1918, 2434, 2442, 2544, 2592,

Dendroica tigrina. - 759, 1275, 2603, 2604,

Dendroica aestiva. - 75, 183, 698, 699, 1046, 1417, 1717, 1718, 2398,

Dendroica caerulescens. - 81, 82, 638, 646, 677, 686, 690, 700, 707, 708, 989, 990, 998,
1050, 1087, 1093, 1096, 1100, 1287, 1300, 1310, 1316, 1389, 1407, 1411, 1412, 1706, 1775, 1893,
1986, 1995, 2049, 2087, 2431, 2544,

Dendroica coronata. - 83, 87, 232, 576, 587, 588, 597, 779, 799, 916, 934, 945, 968,
969, 970, 980, 1080, 1081, 1104, 1509, 1517, 1544, 1550, 1613, 1786, 1880, 1896, 2248, 2269, 2289,
2290, 2291, 2292, 2384, 2416, 2524, 2532, 2547, 2548, 2551,

Dendroica auaculosa. - 73, 74, 637, 651, 676, 753, 984, 997, 1012, 1014, 1017, 1024,
1058, 1089, 1264, 1298, 1309, 1404, 1927, 2057, 2076, 2190, 2443, 2444, 2557, 2576, 2587,

Dendroica caerulea. - 674,

Dendroica pensylvanica. - 85, 86, 88, 89, 648, 692, 976, 1001, 1035, 1039,
1044, 1045, 1261, 1281, 1406, 1437, 1476, 1477, 1756, 1910, 1943, 2407, 2543, 2591,

Dendroica castanea. - 84, 756, 788, 995, 1010, 1011, 1022, 1027, 1031, 1042, 1047,
1048, 1051, 1067, 1070, 1097, 1276, 1299, 1439, 1467, 1737, 1915, 1920, 2086, 2188, 2189,

Dendroica striata. - 76, 155, 214, 754, 755, 762, 776, 777, 778, 1013, 1026, 1040, 1041,
1052, 1057, 1440, 1470, 1921, 1923, 1926, 1996, 1997, 2441, 2609,

Dendroica blackburniae. - 96, 1187, 207, 208, 760, 985, 1005, 1006, 1008,
1009, 1015, 1018, 1036, 1037, 1043, 1054, 1059, 1062, 1076, 1099, 1101, 1103, 1108, 1290, 1291,
1301, 1405, 1409, 1410, 1424, 1425, 1429, 1738, 1740, 1743, 1949, 2409, 2590,

Dendroica virens. - 47, 51, 138, 143, 647, 691, 747, 752, 780, 784, 975, 979, 1020,
1079, 1086, 1091, 1094, 1265, 1271, 1273, 1280, 1433, 1484, 1692, 1712, 1886, 1894, 1897,
2038, 2039, 2084, 2405, 2546, 2556, 2577,

Dendroica vigorsii. - 589, 741, 930, 1352,

CLIX

Dendroica palmarum hypochrysea. - 90, 590, 612, 622, 911, 931, 932, 933, 935,
937, 962, 1077, 1082, 1393, 1394, 1494, 1497, 1634, 1645, 1866, 1998, 2018, 2019, 2024, 2047,

Dendroica discolor. - 1479,

CLIV

Seiurus aurocapillus. - 55, 625, 761, 1004, 1021, 1038, 1071, 1092, 1228, 1368, 1369,
1380, 1889, 1904, 1905, 2430, 2565,

Seiurus noveboracensis. - 992, 1063, 1066, 1251, 1257, 1392, 1638, 1642, 2070,
2071, 2192,

CLXIV

Seiurus motacilla. - 53, 54, 220, 574, 621, 725, 936, 949, 950, 955, 964, 1068,
1110, 1353, 1379, 1489, 1624, 1632, 1636, 1637, 1677, 1697, 1877, 1901, 1902, 2031, 2032, 2034, 2035,
2483, 2364, 2383, 2519, 2534, 2596,

Geothlypis philadelphia. - 1000, 2432,

Geothlypis trichas. - 78, 626, 627, 999, 1019, 1064, 1072, 1098, 1105, 1240, 1364,
1382, 1459, 1480, 1666, 1899, 1929, 1954, 1955, 1959, 2083, 2411, 2435, 2436, 2561, 2608,

Icteria virens. - 79, 80, 682, 1032, 1061, 1485, 1709, 1729, 1882, 1909, 1940, 2440,
2622, 2623,

Sylvania mitrata. - 135, 640, 642, 645, 657, 701, 702, 728, 978, 993, 1025,
1060, 1065, 1084, 1107, 1223, 1426, 1427, 1428, 1475, 1662, 1663, 1680, 1681, 1682, 1683, 1688, 1689,
1704, 1705, 1730, 1731, 1762, 1766, 1767, 1912, 1913, 1941, 1947, 1957, 1958, 2063, 2074, 2075, 2563,

Sylvania pusilla. - 656, 1416, 1916, 2055, 2056, 2445, 2588,

Sylvania canadensis. - 983, 986, 987, 988, 1016, 1023, 1034, 1049, 1053, 1055,
1109, 1259, 1430, 1434, 1435, 1438, 1911, 1917, 1919, 2067, 2082, 2186, 2433, 2448,

XLIII

Setophaga ruticilla. - 186, 654, 688, 727, 748, 1003, 1056, 1078, 1365, 1373,
1377, 1646, 1679, 1764, 1878, 1895, 1898, 1914, 1978, 2077, 2413,

Anthus pensilvanicus. -

^{LVII,}
Galeoscoptes carolinensis. - 121, 629, 1126, 1253, 1376, 1751, 2417,
2558,

^{LV, CLXXIII, CLXXX,}
Harporhynchus rufus. - 102, 145, 1148, 1295, 1386, 1400, 1656, 1763,
2036, 2377, 2392, 2393, 2535,

Thryothorus ludovicianus. - 2167, 2168,

Troglodytes aëdon. - 616, 1114, 1125, 1221, 1274, 1315, 1660, 1770, 2541,

^{CXL,}
Troglodytes hiemalis. - 7, 263, 374, 461, 829, 872, 1308, 2045, 2481,

^{LXV,}
Cistothorus palustris. - 72, 717, 732, 1123, 1278, 1444, 1447, 1664, 1736,
1961, 1990, 1991,

Certhia familiaris americana. - 149, 255, 368, 369, 370, 446, 447, 448,
812, 826, 827, 836, 873, 874, 921, 940, 1311, 1512, 1867, 2344,

^{XV, XVI, XVII,}
Sitta carolinensis. - 226, 227, 228, 373, 415, 450, 465, 835, 849, 854, 1583,
1584, 1788, 1789, 1807, 2150, 2174, 2470, 2471,

^{CLVI,}
Sitta canadensis. - 157, 158, 159, 160, ⁴¹⁵433, 434, 526, 527, 2629,

Parus bicolor. - 2145, 2146, 2147, 2148, 2149, 2220,

^{II, LXLX,}
Parus atricapillus. - 336, 464, 825, 851, 857, 863, 1220, 1284, 1539, 1540, 1561,
1649, 1650, 1793, 1794, 2221, 2268, 2311, 2312,

Parus carolinensis. - 2222, 2223, 2224,

^{CXXXIV, CXXXV, CXXXVII, CXXXVIII,}
Regulus satrapa. - 11, 288, 366, 367, 445, 566, 834, 839, 840, 845, 864, 865, 951,
1302, 1303, 1510, 1511, 1518, 1519, 1541, 1542, 1543, 2219, 2468, 2469, 2475,

^{CXXXVII, CLXIII, CLXVII,}
Regulus calendula. - 10, 577, 581, 913, 915, 922, 926, 927, 928, 929,
943, 952, 953, 954, 958, 982, 1318, 1354, 1625, 1883, 1884, 2026, 2027,
2386, 2525, 2540

Turdus mustelinus. - 650, 1129, 1134, 1397, 1671, 1672, 1693, 1695, 1722,
1984, 2552, 2578, 2579,

Turdus fuscescens. - 1130, 1158, 1201, 1399, 1402, 2404,

Turdus aliciae. - 229, 230, 786, 790, 791, 793, 794, 795, 1153, 1159, 1319,
1436, 1753, 1778, 1779, 2439, 2450, 2589,

Turdus ustulatus swainsoni. - 643, 649, 658, 659, 660, 661, 769, 789,
971, 972, 1162, 1164, 1165, 1189, 1194, 1233, 1297, 1398, 1694, 2088,

^{XXIX, CLXIX,}
Turdus aonalaschkae pallasii. - 116, 289, 290, 555, 556, 923,
938, 939, 1154, 1322, 1323, 1335, 1486, 1498, 1504, 1618, 1784, 1873, 2004, 2030,
2201, 2360, 2365, 2390, 2490, 2542,

^{VII, XXV, CXVI, CXXII, CXXXII, CXXXIII, CLVIII,}
Merula migratoria. - 108, 165, 166, 167, 179, 467, 468, 486, 521, 546, 547,
683, 730, 810, 899, 1600, 1606, 1617, 1655, 1732, 1759, 1827, 1837, 1862,
2204, 2208, 2209, 2219, 2255, 2256, 2257, 2278, 2279, 2284, 2285, 2286, 2353,
2354, 2507, 2521, 2614,

^{XII, XIII, XXVIII, LXLVIII, CIV, CVII, CVIII, CXII, CXIII, CXIV, CXV, CXXIII,}
Sialia sialis. - 23, 44, 48, 49, 110, 111, 112, 125, 304 to 312, 318,
487, 513, 514, 516, 517, 532, 542, 554, 744, 765, 883, 884, 885, 889,
919, 959, 1115, 1321, 1508, 1535, 1551, 1552, 1702, 2006, 2218, 2249,
2250 to 2253, 2283, 2299 to 2304, 2308 to 2310, 2313, 2328, 2329,
2374, 2375, 2378, 2379, 2634, 2635,

Notes on the food of Birds of Prey.

Cathartes aura.

Circus hudsonius.

Accipiter velox.

I have seen them hunting flickers in pairs at Highland Falls. On April 26, 1878, at Highland Falls, N.Y., I saw one trying to capture a Field Sparrow (Spizella pusilla) that cried loudly and escaped by darting into a dense tangle of cat-brier.

No. 4239. Ft. Verde, Ariz. Oct. 10, 1885. ♂ juv. Hunting Gambel's Partridge when shot

No. 4340 ♂ juv. do do do

No. 4339. ♀ ad. Ft. Verde, Arizona. Dec. 23, 1885. "Its crop was filled with small birds' flesh and bones, but contained no hair or feathers."

No. " 4369. Accipiter fuscus ♀ juv. This bird had just finished neatly plucking a Gambel Quail, and began to eat it, when I came along and flushed it from the margin of the sluice. It flew about 50 yards across the stream and alighted with the Quail still in its claws, as I found it when shot. This shows a great deal of strength in so small a bird!

Accipiter cooperi.

At Highland Falls, N.Y., on May 1, 1878, I climbed to an old nest of Cooper's Hawk, "which was placed in the tripple fork of a very tall oak-tree, having been used last year. It was filled with bones - chiefly those of ~~small~~ birds (Bonasa umbellus, etc.), the smaller ones having worked deep into the interstices of the sticks of which the nest was built. I gathered many of these bones, which I will presently identify."

Under Cypselurus montezumae (p. 132 of my journal of a trip to the San Francisco & Mogolou Mts, Ariz., in May and June, 1887) is the following: "We have only seen one pair at the Mormon Lake. Sergeant Shiff flushed them, when a Hawk (Accipiter cooperi) caught one and carried it off. The Sergeant shot at it twice with his rifle, but it escaped, and carried its dainty meat with it."

(Date about May 30, 1887.)

No. 4202 ♂ juv. Sept. 9, 1885, Ft. Verde, Ariz. was eating a Gambel's Partridge (Callipepla gambeli) when shot.

Accipiter stricapillus.

Accipiter atricapillus striatulus.

Parabuteo unicinctus harrisi.

Buteo borealis.

"This handsome Hawk feeds on mice, moles and shrews, which it finds in meadows. Though it likes to sit on a hay-pole and swoop down upon such small fry, it is often quite formidable, carrying off fowls from barnyards. It is able to capture even the Ruffed Grouse (Bonasa umbellus). I once saw a Red-tail fly a quarter of a mile, bearing a fully grown Ruffed Grouse in its claws. I followed, and fired a shot at it, which caused it to let its prey drop to the ground from the tree where it was feeding; it afterwards appeared to regret leaving the Grouse, which was neatly picked, and had one side of the breast partly eaten [Journal, Vol. I, p. 121.]

Buteo borealis calurus.

Buteo abbreviatus.

In Arizona, I found them feeding on fish, and shot specimens whose stomachs contained lizards and Frogs.

Buteo Swainsoni.

No. 4821 ♀ ad. (breeding). Ft. Verde, Arizona. May 1, 1886, had eaten a large lizard () and several Horned Lizards () shortly before I shot her.

Buteo latissimus.

It feeds on small quadrupeds and salamanders. None of the numerous specimens dissected contained feathers, or other evidence of its feeding on birds.

In the spring of 1871, I examined a nest in a woods near my house at Highland Falls, N.Y., which contained half-grown young. Numerous pieces of skin and tails of the Red Squirrel (Sciurus hudsonius) attested its destructiveness to that quadruped.

Urubitinga anthracina.

One was seen eating a fish on the sandy margin of the Verde River, in Arizona.

Archibuteo lagopus sancti-johannis.

Archibuteo ferrugineus.

Aquila chrysaetos.

About 1875, a Golden Eagle was shot, at Cold Spring, on the Hudson River, New York, in the act of killing a goose belonging to the farmer who shot the Eagle.

Haliaeetus leucocephalus.

In the Hudson Highlands, its food consists almost entirely of fishes, except during the coldest winter weather, when they are unattainable. I have proof of its capturing gold-~~fish~~^{fish} (Carassius auratus), common sucker (Catostomus teres).

Falco mexicanus.

No. 4371 ♀ immature.

"Stomach crammed with birds - Lophortyx, Harporhynchus, etc."

Falco peregrinus anatum.

No. 2100, ♀ juv. Oct. 6, 1880. Sayville, Long Island New York.

There were several Duck Hawks on the beach, preying on small birds. The specimen shot had been feeding on various small birds, which had first been roughly picked, and swallowed in large pieces. Whole legs of the Robin, Alice's Thrush, Catbird, ^{and} Warblers were found in its crop.

Fort Verde, Arizona. Sept. 3, 1885. "I followed a Night Heron (Nycticorax nycticorax naevius) for some time, but it would not permit me to get within range. At length it flew, and a Duck Hawk (F. p. anatum) started in pursuit from an adjacent cliff, and easily overtook and clutched it, whereupon the poor heron croaked fearfully, and fell into the water, but swam ashore and flew away before I could reach it. The Hawk evidently had no use for Myctiidae, as Teal were plentiful, and only chased and scared it for amusement. The Hawk twice alighted upon the ground beside the Verde River.

Falco columbarius.

No. 2085, ♀ juv. September 16, 1880. Shot at Highland Falls,
New York, in the act of destroying a hen belonging to
Mr. William Haurst.

Falco richardsonii.

Falco sparverius.

On February 18, 1879, Dr. Clinton L. Bagg saw a Sparrow Hawk at the foot of 110th Street, at the East River in New York City, where it seemed to be chasing the House Sparrows (Passer domesticus). It was in no wise frightened at the numerous workmen about the docks, and flew about amongst them, and out over the river, frequently perching on some iron pillars on shore.

Another Sparrow Hawk was seen hunting European Sparrows in Central Park, New York City, on April 17, 1881. No. 4713. ^{April 4, 1886, Ft. Verde, Arizona.} Its feet and claws were covered with blood & feathers of Zonotrichia intermedia. "This is the first instance of its killing birds for food that I remember to have noted."

"One that I shot on April 8th (No. 4720) flew from a cottonwood tree to the top of another tall one one hundred (100) yards distant, bearing in its claws a Robin (M. m. propinqua), partly plucked and decapitated without apparent inconvenience. They frequent especially the vicinity of streams, and are the terror of Doves and Gambel's Partridge."

Polyborus cheriway.

Candion haliaëtus carolinensis.

Strix pratineola.

Fort Verde, Ariz. July 29, 1885. "The burrow was neatly excavated, roomy, and perfectly level upon the bottom, which was strewn with pellets of bones, hair (and feathers?).

Fort Verde, Arizona. July 30, 1885. "Visited the Owl's nest * * * * The bottom of the cavity was covered with pellets containing bones of such small quadrupeds as Thomomys talpoides umbrinus, Tamias harrisi and Neotoma, together with a quantity of hair, and feathers of small birds.

Asio wilsonianus.

Asio accipitrinus.

Syrnium nebulosum.

Nyctala acadica.

Megascops asio.

"One winter was famous for its Screech Owls (Scops asio), which infested Washington Square, and waged war upon the European Sparrows."

Megascops asio trichopsis.

Bubo virginianus.

Bubo virginianus subarcticus.

At Peek's Lake, a noted hunting-ground, 20 miles northwest of Fort Verde, Arizona, I was told that this Owl kills and eats a great many wounded ducks, that have been maimed by gunners.

Nyctea nyctea.

No. 815, ♂ ad., December 1, 1875. Shot on the south side of Long Island, New York, by Wm. Birch. Its stomach was distended with feathers.

No. 2108, ♂ ad., Oct. 29, 1880, near Garden City, Long Island, N.Y. Stomach entirely empty.

Speotyto cunicularia hypogaea.

No. 4698 Glaucidium gnoma.
S.D. Fossil Creek, Ariz. March 29, 1886.
"Stomach contained several lizards only."

Glaucidium phalaenoides.



